Emergency Plan for an Accidental Spill

This emergency plan delineates the specific measures to be carried out in the event of an accidental spill of hazardous materials at the Residences at Quail Ridge in Acton, MA. It must be emphasized that in the event of an accidental discharge, response must be both immediate and correct. This emergency plan was primarily written to cover an accidental spill of hazardous materials at the Residences at Quail Ridge Wastewater Treatment Facility, but it serves as a template for any substantial accidental spill. It is essential that personnel involved with any program that requires the use of a potentially hazardous material be familiar with the emergency plan and maintains emergency spill absorption kits, personal safety equipment and clothing and provides local authorities with updates relative to change in use of site chemicals.

Storage and Emergency Spill Procedures

Foam Blast 476

Foam Blast 476 will be stored cool and dry at the location shown on the Site Plan (Location Q7) under well ventilated conditions. Foam Blast 476 shall be stored away from incompatible substances which includes strong oxidizing agents. Foam Blast 476 shall not be stored in open, unlabeled, or mislabeled containers. Foam Blast 476 containers shall be kept closed when not in use. Empty Foam Blast 476 containers contain residual product which may exhibit hazards of product. Empty Foam Blast 476 containers shall not be reused without commercial cleaning or reconditioning. Typical site storage will be in sealed 5 gallon buckets with thread spout opening. Active use buckets shall be placed in a spill sump basin with 49 gallon capacity in case of metering pump leakage.

In the event of an accidental spill of Foam Blast 476, immediately ventilate the building and eliminate any ignition sources. The spill shall be contained by diking with sand, earth, or other non-combustible material. Wear proper personal protective clothing and equipment. Absorb the spill with an inert material. Place into labeled, closed container; store in safe location to await disposal. Change contaminated clothing and launder before reuse. Spillage may cause slippery conditions, especially when wet.

Citric Acid

Citric Acid will be stored in a cool, well-ventilated area at the location shown on the Site Plan (Location M6). Citric Acid container shall be kept tightly closed. Citric Acid will be kept away from heat and sources of ignition. Ground all equipment containing Citric Acid. Do not ingest Citric Acid. Do not breathe dust. Avoid contact with eyes. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, reducing agents, metals, alkalis. Citric acid is typically only used on an annual basis for membrane cleaning. Chemical is transported to the site in 50 pound bags and mixed in a 325 gallon mix tank just prior to use. Typically only two bags need to be on hand for the cleaning operations at any time. Bag storage will be over a containment pallet to avoid floor wash down water and any other potential spills.

In the event of a small accidental spill of Citric Acid, use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and then flushing into the floor drainage system. The site building has several floor drains which carry floor drainage to an exterior 5000 gallon storage tank. This tank is typically full of recycle waters and is connected to the headworks of the plant. Any spill within the building would be neutralized and diluted by the tank contents and then allowed to returned to the influent side of the treatment process and be treated with incoming flows.

In the event of a large accidental spill of Citric Acid, stop the leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements, or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary sewer.

Sodium Hypochlorite (Commercial Grade 10%-14%)

Sodium Hypochlorite is anticipated to be supplied in a 12% to 12.5% solution to the site and delivered in either a 55 gallon drum or one or two 15 gallon carboys. Sodium Hypochlorite is typically only used on an annual basis for membrane cleaning. The Sodium Hypochlorite will be stored in a cool, well-ventilated area at the location shown on the Site Plan (Location W4). Sodium Hypochlorite container shall be kept tightly closed and stored on a containment pallet. Sodium Hypochlorite shall be stored separate from acids, alkalies, reducing agents, combustibles and direct heating sources. See NFPA 43A, Code for the Storage of Liquid and Solid Oxidizers. Do not store above 20°C (68°F). Containers shall be air-tight and light-resistant. Keep container dry, away from heat, and away from ignition sources. Keep away from combustible material. Do not ingest. Do not breathe gas, fumes, vapor, or spray. Never add water to this product, instead add product to water if more dilute concentrations are needed. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin or eyes. Keep away from incompatibles such as reducing agents, combustible materials, organic materials, metals, and acids.

In the event of a small accidental spill, dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary, neutralize the residue with a dilute solution of acetic acid.

Sodium Hypochlorite 12.5% is a corrosive liquid and is an oxidizing material. In the event of a large accidental spill, stop the leak if without risk. Absorb with DRY earth, sand, or other non-combustible material. Do not get water inside of the container. Avoid contact with a combustible material (wood, paper, oil, clothing, etc.). Keep substance damp using water spray. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements, or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of acetic acid.

Sodium Bicarbonate

Sodium Bicarbonate will be stored in a cool, well-ventilated area at the location shown on the Site Plan (Location P4). Sodium Bicarbonate is supplied in 50 pound bags. Bag storage would be on a containment or a wrapped shipping pallet. Chemical use is based upon process conditions but could involve up to two bags per week. Chemical is manually added to a self contained mix tank and metering pump installation where it is diluted and dissolved to a set concentration.

Do not ingest. Do not breathe dust. If ingested, seek medical advice immediately and show the container or the label. Keep Sodium Bicarbonate away from incompatibles such as acids.

In the event of a small accidental spill, use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and then flushing into the floor drainage system. The site building has several floor drains which carry floor drainage to an exterior 5000 gallon storage tank. This tank is typically full of recycle waters and is connected to the headworks of the plant. Any spill within the building would be neutralized and diluted by the tank contents and then allowed to returned to the influent side of the treatment process and be treated with incoming flows.

In the event of a large accidental spill, use a shovel to put the material into a convenient waste disposal container or other container for re-use. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the drain system.

MicroC 2000

MicroC containers shall be kept closed when not in use. MicroC is not to be stored in temperature extremes. When handling MicroC, personal protective equipment shall be used. Avoid breathing mist. Consult the manufacturer prior to using if product is older than six months. MicroC is shipped in 55 gallon Drums or 15 gallon carboys. Active containers shall be placed in sump basins. Chemical use is based upon process conditions but could involve about 10 gallons per week.

In the event of an accidental spill, contain the spill and absorb spill with dry absorbent. Use personal protective equipment and ventilate area of leak or spill. Dispose of contaminated materials in accordance with applicable national, state, and local regulations. Finish cleaning by spreading water on the contaminated surface and then flushing into the floor drainage system. The site building has several floor drains which carry floor drainage to an exterior 5000 gallon storage tank. This tank is typically full of recycle waters and is connected to the headworks of the plant. Any spill within the building would be neutralized and diluted by the tank contents and then allowed to returned to the influent side of the treatment process and be treated with incoming flows.